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ABSTRACT

In this study, the implementation effects of a program for teaching coaching skills to Dutch primary school teachers acting as supervising or cooperating teachers for teachers-in-training are described. Coaching is a form of in-class support intended to provide teachers-in-training with feedback on their functioning and, thereby, stimulate self-reflection and self-analysis to improve instructional effectiveness. Based on pre- and post-training ratings of coaching conferences with the teachers-in-training, a significant treatment effect was found for coaching skills concerned with the development of autonomy (empowerment), feedback, and encouragement of self-reflection. The untrained supervising teachers were rated more effective by their teachers-in-training than the trained supervising teachers for coaching skills concerned with the development of improvement plans and the use of observational data. These differences in favor of the untrained supervising teachers can be attributed to the prior training of supervisory skills, however, and explicit preparation of the teachers-in-training for the Independent Final Teaching Period. (Contains 32 references.) (Author/SM)

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Coaching Teachers-in-Training

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European Association for Research on Learning and Instruction

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ABSTRACT

In this study, the implementation effects of a programme for the training of coaching skills with Dutch primary school teachers acting as supervising or co-operating teachers for teachers-in-training are described. Coaching is a form of in-class support intended to provide teachers-in-training with feedback on their functioning and thereby stimulate self-reflection and self-analysis to improve instructional effectiveness. Based on the pre- and post-training ratings of coaching conferences with the teachers-in-training, a significant treatment effect was found for the coaching skills concerned with the development of autonomy (empowerment), feedback and encouragement of self-reflection. The untrained supervising teachers were rated more effectively by their teachers-in-training than the trained supervising teachers for the coaching skills concerned with the development of improvement plans and the use of observational data. These differences in favour of the untrained supervising teachers can be attributed to the prior training of supervisory skills, however, and explicit preparation of the teachers-in-training for the Independent Final Teaching Period.

Problems of Beginning Teachers

Having completed their initial teacher training, beginning teachers often experience a "reality shock" when faced with the demands of actual teaching and the gap between their ideals and the reality of every day school life (Koetsier & Wubbels, 1995; Veenman, 1984). One possible explanation for the reality shock is the unrealistic optimism of teachers-in-training. Research on learning to teach has shown novice teachers to leave their training programmes and enter the profession believing that "teaching is not that difficult" (Huling-Austin, 1992). When the novice teachers confront the real demands of teaching, this belief can quickly turn into feelings of discouragement.

Another explanation for the reality shock is teacher isolation (Lortie, 1975). In education, unlike other professions, the beginner must not only face the uncertainties inherent to starting a new profession but also all of the responsibilities of an experienced teacher starting on the very first day of teaching. Opportunities to interact with peers or obtain support and assistance from experienced teachers are also often lacking. Two recent studies by the Dutch Educational Inspectorate (Inspectie van het Onderwijs, 1994, 1995) show many beginning primary and secondary school teachers to simply be "thrown into the deep" and left to their own. Most schools have not developed a systematic plan for the induction of beginning teachers. If support is provided, moreover, the beginning teachers must generally request it themselves. About one-half of the beginning primary school teachers and two-thirds of the beginning secondary school teachers are not observed teaching and do not receive feedback with regard to their teaching practices from experienced teachers and/or the school principals.

A review of 91 studies from a number of different countries has indeed shown beginning teachers to encounter lots of problems and difficulties (Veenman, 1984, 1987). These problems indicate a clear need for support and assistance. In fact, the pressures encountered during the first years of teaching have been found to discourage many beginning teachers from staying in the profession (Odell & Ferraro, 1992; Colbert & Wolff, 1992). One answer to this problem is to design programmes for the provision of assistance during the first years of teaching (Bolam, 1995; Huling-Austin, 1992; Vonk, 1994).

Induction and Mentoring Programmes for Beginning Teachers

The term "induction" refers to the process of support and training which is increasingly viewed as necessary for a successful first year of teaching. Induction is conceived as bridging the gap between initial training and later inservice training and thereby providing the foundation for continued professional development (Bolam, 1995). Several studies show that well-designed and well-implemented induction programmes can contribute to the retention of teachers, facilitate the development of positive attitudes towards teaching and, when focused on the enhancement of professional skills, improve beginning teachers' performance (Colbert & Wolff, 1992; Feiman-Nemser & Parker, 1990; Geva-May & Dori, 1996; Huling-Austin, 1992; Odell & Ferraro, 1992; Schaffer, Stringfield & Wolfe, 1992; Smithey & Evertson, 1995).

The most consistent finding across induction studies is the importance of the mentor teacher. The development of a personal, collegial and supportive relationship with a colleague who is a novice in the field is a hallmark of mentoring. The development of this relationship is built on mutual respect and trust, and certain mentoring skills and characteristics appear to be particularly important for such a relationship: being people-oriented, respectful, warm, caring, sensitive, empathetic, helpful and prepared to share power and expertise. In addition, the mentor must take a personal interest in the career and individual well-being of the novice and be capable of providing support for others (Barnett, 1996; Yeomans & Sampson, 1994).

Reflection is considered the main catalyst for the development of autonomy and expertise on the part of a novice teacher (Furlong & Maynard, 1995; Tomlinson, 1995). The novice's subjective or practical theories about teaching should be taken as the starting point for reflection. Mentoring should be focused on "reflection-in-action" and "reflection-on-action" (Schön, 1983, 1990). Nevertheless, a recent study by Dunne and Bennett (1997) shows mentors to often focus on craft knowledge and that their conferences with novice teachers are often characterised by a lack of challenge and reflection. It is therefore concluded that mentors may benefit from explicit training in the stimulation of novice teachers to reflect on their actions and thereby move novice teachers to higher levels of professional thinking.

It should be noted that several different concepts of mentoring have been advanced in the literature. Among them are: the expert-novice metaphor, the peer-support framework, the

master-apprentice model and the coaching analogy. As the notion of coaching is adopted as the metaphor for mentoring in the present study, the concept will be considered in somewhat greater detail after first considering the Independent Final Teaching Period as a solution to the reality shock experienced by beginning teachers.

The Independent Final Teaching Period

Given the need for support experienced by beginning teachers and the positive effects of induction and mentoring programmes, Dutch teacher-training colleges have recently implemented the "Independent Final Teaching Period" (IFTP), which is also called "the teacher-in-training apprenticeship" (in Dutch: LIO-stage). The IFTP arrangement is intended to relieve the reality shock experienced by beginning teachers by bridging the gap between initial training and the first professional year. The IFTP typically involves a continuous fourteen week student teaching period during the last year of the teacher training programme. The teacher-in-training is introduced to the pupils as a qualified teacher and teaches all lessons under normal constraints and pressures. In addition to preparing and giving lessons, the teachers-in-training also participate in all other relevant school activities. To guarantee the quality of the teacher-in-training, they must have sufficient teaching and communication skills and also a capacity for self-evaluation and self-monitoring. The teachers-in-training are supervised or coached "at a distance", in the sense that the supervising teachers and teacher educators from the teacher training colleges occasionally observe their lessons.

In a study by Koetsier and Wubbels (1995), the IFTP was indeed found by teachers-in-training to resemble the working situation of the beginning teacher. All off the teachers-in-training reported being obliged to work independently under considerabie pressure which closely resembles the situation of a beginning teacher. The teachers-in-training confronted many of the problems faced by beginning teachers and agreed that numerous aspects of the reality shock experienced by beginning teachers were indeed included in the programme and that the IFTP can greatly reduce the degree of reality shock or at least spread it somewhat more across the first year of teaching. Nevertheless, in reflecting on the structure of the IFTP, Koetsier, Wubbels and Korthagen (1997) conclude that teacher educators and supervising teachers need to enlarge their knowledge of reflective skills and their capacity to promote the

development of such skills among teachers-in-training.

Coaching Teachers-in-Training

To provide the training needed to promote the professional development of teachers-in-training, a coaching programme was specifically developed for this purpose. The coaching or clinical supervision model is most frequently cited in the literature on supervision and mentoring. Coaching can help teachers improve their instructional effectiveness by providing them with feedback on their functioning and stimulating them to be more reflective. The activities of the teacher in the classroom stand central, and observational data collected in the classroom provide the grounds for analysis and reflection.

A recent advancement in the field of coaching is the notion of cognitive coaching developed by Costa and Garmston (1994). The guiding principle behind cognitive coaching is that the instructional behaviours of teachers cannot be influenced until their internal thought processes have been altered. Reflection on teachers' thoughts about their classroom practices is viewed as a means to enhance their expert thinking and problem solving. Such reflection is also considered necessary to bridge the gap between espoused theories and actual practice. The typical sequence of steps engaged in by the coach and the teacher are: a planning conference prior to observation in the classroom, class observation of teaching behaviours and pupil learning and a reflection conference. According to Costa and Garmston (1994), cognitive coaching positively affects self-confidence, classroom management skills, teaching styles, self-awareness and instructional dialogues with colleagues.

In our programme, *Coaching Teachers-in-Training*, coaching is defined as a form of in-class support to enhance teaching competence through systematic reflection on professional practice (Veenman, Visser & Wijkamp, 1998). The coaching is directed at strengthening the instructional competence of teachers-in-training. This implies professional growth and autonomy or what is called empowerment. The coaching cycle (involving a pre-conference, observation, and a post- conference) and the coaching skills are drawn from the models of clinical supervision and coaching developed by Goldhammer (1969), Cogan (1973), Joyce and Showers (1995) and Costa and Garmston (1994). During the classroom observation, "script taping" (or the running of anecdotal records on what is actually said and

done; cf. Hunter & Russell, 1990) is used to collect data on the behaviours and learning discussed in the pre-conference. The coaches not only attend to overt teaching behaviours but also to the internal thought processes which appear to be associated with teaching behaviours by also encouraging the teachers-in-training to reflect on their teaching strategies and implicit assumptions. Our training is concentrated on the following three objectives: (1) establishment of mutual trust; (2) improvement of instructional practice by providing feedback and stimulating teachers-in-training to be more reflective; and (3) enhancement of autonomy and self-actualisation by stimulating the development of self-improvement plans.

Following MacLennan (1995), a mentor is defined in the present study as an experienced teacher for the teacher-in-training to learn FROM and a coach is defined as an experienced teacher for the teacher-in-training to learn WITH. Mentoring generally precedes coaching and, during the stage of mentoring, numerous survival concerns can be addressed and the teacher-in-training learns what is necessary to function effectively within the school organization. During the stage of coaching, the professional development of the teacher-in-training is addressed. The mentoring stage overlaps with the coaching stage, and the mentor and the coach roles can be fulfilled by one and the same person.

Research Questions

In the present study, the effects of a training programme on the coaching skills of supervising teachers (i.e., experienced primary school teachers) were examined. The major research questions were as follows: (1) Do the supervising teachers who participated in the training programme implement the target coaching skills? (2) Do the teachers-in-training coached by the supervising teachers who participated in the training programme perceive a change in the coaching skills of the supervising teachers?

Method and Instrumentation

Design

Two different forms of evaluation were undertaken in the present study. First, the coaching

skills of the trained and untrained supervising teachers were rated by expert judges. Second, the coaching skills of the trained and untrained supervising teachers were rated by the teachers-in-training themselves. Both evaluations concerned the degree of implementation of the desired coaching skills by the supervising teachers. In addition, the coaching conferences were analysed to gain greater insight into the content and focus of the dialogue between supervising teachers and teachers-in-training.

Both forms of evaluation were undertaken using an untreated control group design with pretest and posttest. The experimental group consisted of 20 supervising teachers who received training on a number of coaching skills and their teachers-in-training; the control group consisted of 15 supervising teachers who received no training on coaching skills and their teachers-in-training.

Subjects

In the winter of 1997, a letter of invitation to participate in a training programme devoted to the coaching of supervising teachers was sent by the Christian Pedagogical Centre (CPS), the College of Higher Professional Education North Netherlands (CHN), and the school advisory centre in Groningen (RGAB) to the primary schools in their regions. A total of 20 experienced teachers showed an interest in the full version of the training programme (i.e., studying the training manual, attending two one-day workshops, and conducting and taping a coaching conference before and after training). A total of 15 experienced teachers showed an interest in the restricted version of the training programme (i.e., conducting and taping a coaching conference during the pretest and posttest phases for the teachers following the full version of the training programme and studying or using the training manual after posttesting the teachers participating in the full version of the training programme). The first group of teachers formed the experimental group or the trained group on coaching skills; the second group of teachers formed the control group or the group not trained on coaching skills. Both the experimental and control groups consisted of supervising teachers interested in coaching and were thus initially comparable in this respect.

The average amount of teaching experience reported by the supervising teachers in the two groups was 18 years. The average age of the supervising teachers was 43 years. Of the

entire group of supervising teachers, 20 were women and 19 were men. Both groups had 13 years of experience in supervising student teachers.

The Training Programme

The training manual, *Coaching Teachers-in-Training*, consists of nine sections. In section one, the purpose and structure of the Independent Final Teaching Period (IFTP) are discussed. In addition, five dimensions of professional teaching are discussed: subject-matter expertise, didactic expertise, pedagogical expertise, school organisational expertise and reflective expertise.

In sections two and three, the starting competence of the teachers-in-training and the partnership between the teacher training colleges and the schools are discussed. The supervising or cooperating teacher supervises the quality of the teacher's-in-training work while the teacher educator from the teacher training college monitors the professional development of the teachers-in-training.

In section four, the contribution of coaching to improve instructional effectiveness and further professional development is discussed. A distinction is made between two forms of coaching: consulting and confronting. Conferences initiated by the teacher-in-training represent the coaching function of consulting. These conferences are directed at strengthening the instructional competence of the teachers-in-training, professional growth and empowerment. Consulting is described as supplementing the teacher's-in-training own self-improvement initiatives. Conferences initiated by the supervising teacher represent the coaching function of confronting. In this situation, the supervising teacher wants the teacher-in-training to perform some instructional task at a satisfactory level. In this same section of the training manual, the functions of mentoring and coaching are discussed. Mentoring is described as "putting-in" and coaching is described as "pulling-out" (MacLennan, 1995). Input from the supervising teacher is most needed in the early stages of the Independent Final Teaching Period and least as the teacher-in-training becomes more autonomous. When the teacher-in-training becomes more independent, coaching is used to further enhance his or her reflective and problem-solving capacities.

In section five, the confronting form of coaching is described in further detail. In the

confrontational conference, the supervising teacher discusses the specific performance problems and desired improvement with the teacher-in-training. Attention is devoted to such skills as providing a clear statement of the perceived performance problem, circumscribing the problem, orienting towards the future, being attentive, providing support, reaching mutual agreement on the problem and its possible causes and agreeing on follow-up coaching.

In section six, the coaching skills relevant for a pre-conference with a teacher-in-training are discussed. Attention is devoted to such skills as trust building, problem definition, problem solving, planning alternatives, and the formulation of action plans for improvement.

In section seven, the observation of teaching and "script taping" in particular are discussed. The latter involves making a written record of what is said and done during an observed class session.

In section eight, the coaching skills relevant for a post-conference with a teacher-in-training are discussed. These include probing for the feelings of the teacher-in-training with regard to the lesson, evaluating the outcomes of the action plans, discussing the observational data (reflecting and providing feedback), developing new alternatives, and refining improvement plans. The supervising teachers are advised to invite the teacher-in-training to provide feedback and suggest any refinements which may make for a more productive relationship. In section nine, some evaluation guidelines for the Independent Final Teaching Period are provided and discussed.

In the present study, the content of the training manual constituted the basis for two one-day workshops. Prior to this workshop, the manual was sent to the supervising teachers in the treatment group with the request to study at least the sections on pre-conference, observation and post-conference. During the first workshop, the supervising teachers were trained on the skills relevant for pre-conference with a teacher-in-training and observation; during the second workshop (conducted three weeks after the first one), the supervising teachers were trained on the skills relevant for post-conference with a teacher-in-training. During the application exercises, the participants formed groups of three and alternated being the coach, the teacher and the observer. At the end of each workshop, the supervising teachers designed action plans for their own coaching practice. In general, the supervising teachers rated the training manual and workshops very favourably; they also indicated that they

planned to apply the newly learned coaching skills in the near future.

The Scale for Coaching Skills

All of the pretest and posttest coaching conferences were taped by the supervising teachers. These tapes were then coded by two expert raters using the Scale for Coaching Skills (SCS). The SCS contains 32 items ranging from a score of 1 for no application of the skill to a score of 5 for clear application of the skill. The SCS was used previously in a study to examine the implementation effects of a programme for the training of coaching skills with mentors of beginning teachers (Veenman, De Laat, & Staring, 1998). All of the tapes were coded independently by two expert raters; disagreements between the two raters were discussed until consensus was achieved. The inter-rater reliability checks for the two raters were estimated using analysis of variance (intraclass correlations; cf. Winer, 1971) and found to range from 0.66 to 0.99 (median 0.85) for a random sample of 17 tapes.

The principal components analysis of the SCS scores in the study of the mentors of beginning teachers (Veenman, De Laat & Staring, 1998) revealed four factors (or subscales): (1) developing autonomy (14 items), (2) feedback (7 items, (3) encouragement of self-reflection (8 items), and (4) business-like attitude (3 items). These subscales were also used in the present study. The Cronbach-alpha coefficients for the entire scale and the four subscales ranged from .85 to .96 (see Table 1).

In order for the teachers-in-training to evaluate the coaching skills of their supervising teachers, the coached teachers-in-training used the Teacher Scale for Coaching Skills (TSCS). This scale is derived in part from the SCS but also contains items concerning the use of observational data by the supervising teacher and the perceived effects of the coaching conference on the instructional behaviour of the teacher-in-training him/herself. The TSCS contains 32 items ranging from a score of 1 for no application of the skill to a score of 5 for clear application of the skill. The initial version of this scale was also used to evaluate a coaching programme for mentors of beginning teachers (Veenman, De Laat & Staring, 1998). The principal components analysis of the TSCS scores for the mentors of beginning teachers revealed four factors (or subscales): (1) making concrete improvement plans (12 items), (2) improvement of instruction through self-reflection (7 items), (3) empathic stimulation to

improve instruction (7 items), and (4) appreciation of the supervising teacher's coaching skills (6 items). These four subscales were also used in the present study. At posttest, a fifth scale was added, namely "supervising teacher's use of observational data" (7 items). This scale was only used in the posttest because it was assumed that the trained supervising teachers in the complete trained coaching model (including pre-conference, observation and post-conference) would only make use of observational data at posttest. The Cronbach-alpha coefficients for the TSCS as a whole and its five subscales ranged from .61 to .95 (see Table 2).

Data Collection and Analysis

Prior to training, the supervising teachers conducted a coaching conference with a teacher-in-training. The supervising teachers were asked to conduct this conference in a manner similar to the conferences which they usually perform. This pretest for the experimental and control groups was conducted in December 1997. The workshops for the experimental group then took place in January 1998. In April 1998, the trained and untrained supervising teachers were again asked to conduct a coaching conference with the same teachers-in-training.

All of the coaching conferences were audiotaped and then sent to the expert raters for coding. After each coaching conference, the teachers-in-training also rated the coaching skills of their supervising teachers and were asked to estimate the effects of the coaching conference on their own instructional behaviour. The supervising teachers did not have access to the ratings provided by the teachers-in training.

A one-tailed *t*-test for paired samples was used to examine the differences between the pretest and posttest data for the trained and untrained groups of supervising teachers/teachers-in-training. Independent one-tailed *t*-tests were used to examine the SCS gain scores (posttest minus pretest scores) for the trained versus untrained groups in coaching skills. Due to initial differences in the TSCS scores, an analysis of covariance (ANCOVA) was used to examine the differences between the treatment and control groups of teachers-in-training (with the initial TSCS scores as the covariate). A significance level of 5% was used in all of the statistical tests (one-tailed). In all cases, the supervising teacher and the teacher-in-training were the unit of analysis.

Results

Comparison of the trained group with the untrained group for differences prior to training showed no significant differences in the SCS scores. Significant differences between the TSCS ratings provided by the teachers-in-training in the experimental versus control groups were found for the total mean score and three subscales, namely making concrete improvement plans, improvement of instruction through self-reflection and empathic stimulation to improve instruction ($p < 0.01$). The supervising teachers in the control group were rated higher by their teachers-in-training than the supervising teachers in the experimental group. After completion of the pretest and the first workshop on coaching skills, we were informed by the teacher educators from the participating teacher training college that 11 of the 15 supervising teachers in the control group were following a course on supervisory skills. The training started one month prior to our training of coaching skills. At the same time, the teacher educators from this teacher training college reported preparation of their teachers-in-training for the Independent Final Teaching Period by explicitly emphasising the obligation of the teachers-in-training to work independently and the need to reflect on their teaching practices. Obviously, the course on supervisory skills and such explicit preparation for the IFTP may produce more favourable attitudes towards coaches and thus higher TSCS ratings.

To examine the initial differences in the TSCS scores for the three groups (experimental group, $n = 20$; control group one with supervisory skills training, $n = 11$), and control group two with no supervisory skills training; $n = 4$), an analysis of variance (ANOVA) was conducted. No significant differences in the TSCS scores for the three groups at pretest were found. The two subsets of teachers-in-training in the control group were therefore combined. However, the initial differences between the experimental group and the (combined) control group should be kept in mind in interpreting the results of the present study.

A summary of the SCS scores for the trained and untrained supervising teachers is presented in Table 1. The data displayed in this table show the training of coaching skills to have a marked effect on the coaching skills of the supervising teachers. Significant differences between pretest and posttest for the trained supervising teachers were found for

the total SCS and three subscales: developing autonomy, feedback and encouragement of self-reflection ($p < 0.01$ - $p < 0.05$). No significant pretest versus posttest differences were found for the untrained supervising teachers. Significant differences in the gain scores for the trained versus untrained supervising teachers were also found for the total SCS and three subscales: developing autonomy, feedback and encouragement of self-reflection ($p < 0.01$ - $p < 0.05$).

A summary of the TSCS scores for the trained and untrained supervising teachers at pretest and posttest as provided by their teachers-in-training is presented in Table 2. Significant differences between pretest and posttest were found for the trained group on the total TSCS and the four subscales: making concrete improvement plans, improvement of instruction through self-reflection, empathic stimulation to improve instruction and appreciation of the mentor's coaching skills ($p < 0.01$). The untrained group also scored higher at posttest than at pretest on the total TSCS and three subscales ($p < 0.01$); the subscale appreciation of the mentor's coaching skills did not reveal significant differences for the untrained group. When the adjusted mean scores for the trained supervising teachers are compared to those for the untrained supervising teachers, one significant difference was found. The untrained supervising teachers were rated more effectively by their teachers-in-training than the trained supervising teachers on the subscale making concrete improvement plans ($p < 0.05$). The 11 supervising teachers in the (sub)control group receiving training in supervisory skills scored higher on this subscale ($M = 4.2$) than the four supervising teachers in the (sub)control group with no training in supervisory skills ($M = 3.05$) and the 20 teachers in the treatment group ($M = 3.6$). In addition, a significant difference was found between the trained and untrained supervising teachers for the use of observational data in the provision of feedback at posttest in favour of the untrained group ($p < 0.05$). It should be noted, however, that all of the teachers-in-training rated the coaching skills of their supervising teachers quite positively at pretest.

Discussion

The results of the present study suggest that the training programme positively affects the coaching skills of supervising teachers. Expert raters rated the trained supervising teachers

higher than the untrained supervising teachers on the Scale for Coaching Skills (SCS). Significant differences were found between the trained and untrained supervising teachers for total SCS and three subscales: developing autonomy, feedback and encouragement of self-reflection. These findings correspond to those from a study evaluating a coaching program for the mentors of beginning teachers (Veenman, De Laat & Staring, 1998). Empowerment implies strengthening the autonomy of teachers-in-training and thereby encouraging them to reflect on their own instructional effectiveness and formulate their own plans to improve their teaching. Feedback is an important skill, particularly at post-conference. Feedback is also an important part of the analysis of the observations and the production of self-designed plans for instructional improvement. Feedback encourages teachers-in-training to adjust their performance through "reflection-on-action" and "reflection-in-action" (Schön, 1983). The trained supervising teachers showed better feedback skills than the untrained supervising teachers. Their feedback was more concrete, more specific and limited to a small number of performance problems.

Encouragement of reflection refers to coaching activities intended to stimulate self-reflection and subsequent action on the part of the teacher-in-training. These activities include asking questions about learning experiences of the teacher-in-training, clarifying and probing their responses, and empathizing with their accomplishments rather than telling them how to perform. Engaging teachers-in-training and supervising teachers in this "reflective dialogue" is meant to help the teacher-in-training develop his/her own instructional style. Learning through reflection-on-action and reflection-in-action has been associated with the development of expert thinking and professional expertise (Schön, 1983). With regard to business-like attitude or the willingness of both the supervising teacher and the teacher-in-training to focus on the purpose of the coaching conference -- namely, the development of alternatives for the improvement of instructional effectiveness, no differences were found between the trained and untrained supervising teachers.

The generally positive ratings provided by the coached teachers-in-training for the skills of their supervising teachers show the teachers-in-training to indeed experience coaching as something positive. The above average ratings provided by the coached teachers-in-training also suggest that they perceive the coaching conferences as improving their instruction. The coaching skills of reflection on instructional practices and the framing of

plans for improvement presumably enhance the possibilities for real change as well. Nevertheless, the coached teachers-in-training were not found to rate the trained supervising teachers as more effective than the untrained supervising teachers. Although both the trained and untrained supervising teachers showed improvement at posttest, the untrained supervising teachers were rated by the teachers-in-training as more effective on the subscales making concrete improvement plans and supervising teacher's use of observational data. As noted before, the differences in the scores on these two subscales of the TSCS are due to the high scores of the (sub)control group of teachers-in-training who were coached by supervising teachers who received training on supervisory skills one month prior to our training. In addition, these teachers-in-training were also given explicit preparation for the Independent Final Teaching Period.

In sum, the effects of a training programme directed at the coaching of supervising teachers were found to be positive and thus promising. The trained supervising teachers were found to put a number of important and desirable coaching skills into practice. Whether these coaching skills actually foster changes in the cognitive processes and instructional behaviours of the teachers-in-training and thereby enhance pupil learning, however, remains to be considered in future research.

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Table 1

Mean SCS Scores from Expert Raters and Results of t-Tests for Differences in Pretest and Posttest Scores and Differences in Gain scores for Trained and Untrained Supervising Teachers

Scale for Coaching Skills (SCS)	Trained group (n = 20)				Untrained group (n =15)				Pre-post gain				t
	Pre		Post		Pre		Post		Trained group		Untrained group		
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	
SCS total (32 items, α =.96)	2.2	0.6	2.8**	0.9	2.3	0.6	2.1	0.8	0.6	1.0	-0.2	0.7	2.5**
Developing autonomy (14 items, α =.95)	2.1	0.8	2.6*	1.0	2.2	0.7	2.1	0.9	0.5	1.2	-0.2	0.8	1.8*
Feedback (7 items, α =.91)	2.1	1.0	3.0**	1.0	2.4	0.9	2.2	0.9	0.9	1.4	- 0.3	1.3	2.5**
Encouragement of self-reflection (8 items, α =.87)	1.7	0.6	2.4**	1.0	1.7	0.6	1.5	0.9	0.7	1.1	-0.2	0.7	2.7**
Business-like attitude (3 items, α =.85)	4.8	0.5	4.7	0.8	4.5	0.9	4.7	0.8	-0.1	0.9	0.2	1.8	-0.9

Note. The Mean SCS scores are based on a five-point scale: 1 = no application of the skill, 5 = clear application of the skill. * $p < .05$. ** $p < .01$.

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Table 2

Mean TSCS Scores from Coached Teachers-in-Training, Results of t-Tests on Differences between Pretest and Posttest Scores for Trained and Untrained Supervising Teachers, and ANCOVA test results

Teacher Scale for Coaching Skills (TSCS)	Trained group (n = 20)					Untrained group (n = 15)					F
	Pre-test		Post-test			Pre-test		Post-test			
	M	*SD*	*M*	*SD*	*Adj. M*	*M*	*SD*	*M*	*SD*	*Adj. M*	
TSCS total (32 items, α =.92)	3.2	0.5	3.7**	0.3	3.7	3.6	0.5	3.9**	0.6	3.8	<1.0
Making concrete improvement plans (12 items, α =.89)	3.2	0.6	3.6**	0.3	3.7	3.6	0.5	4.0**	0.6	4.0	3.7*
Improvement of instruction through self-reflection (7 items, α =.82)	3.0	0.7	3.6**	0.5	3.7	3.5	0.8	3.9**	0.7	3.7	<1.0
Empathic stimulation to improve instruction (7 items, α =.61)	3.1	0.5	3.7**	0.3	3.8	3.6	0.7	4.0**	0.5	3.9	<1.0
Appreciation of supervising teacher's coaching skills (6 items, α =.81)	3.4	0.6	3.7**	0.4	3.7	3.6	0.6	3.6	0.9	3.6	<1.0
Supervising teacher's use of observational data [1] (7 items, α =.77)	-	-	2.7	1.4		-	-	3.5	1.2		t =-1.8*

Note. [1] The subscale "supervising teacher's use of observational data" was only used at posttest. The Mean TSCS scores are based on a five-point scale: 1 = no application of the skill, 5 = clear application of the skill. The TSCS total is based on the first four subscales. * $p < .05$. ** $p < .01$.

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